
*Title 40 CFR Part 191
Subparts B and C
Compliance Recertification
Application
for the
Waste Isolation Pilot Plant*

Appendix PEER-2004



*United States Department of Energy
Waste Isolation Pilot Plant*

*Carlsbad Field Office
Carlsbad, New Mexico*

Appendix PEER-2004

1 **FOREWORD**

2 *Appendix PEER-2004 contains primarily the documents related to peer reviews performed*
3 *after the submission of the Compliance Certification Application (CCA). The documents*
4 *included in CCA Appendix PEER are not repeated in this Appendix, with one exception. All*
5 *documents related to the Conceptual Models Peer Review (CMPR), contained in Appendix*
6 *PEER are copied in Appendix PEER-2004. This is because the peer review panel, whose work*
7 *was reported in CCA Appendix PEER, conducted three supplementary peer reviews after the*
8 *submission of the CCA. Also, two peer reviews performed in 2003, while conducted by new*
9 *peer review panels, are related to the CMPR panel's work performed in 1996-97.*

10 *In addition to the peer reviews conducted in accordance with NUREG-1297 in specific*
11 *compliance with 40 CFR section 194.27 (a), CCA Appendix PEER included reviews*
12 *performed by a number of review and oversight groups. This appendix includes additional*
13 *reviews performed by the National Academy of Sciences (NAS), International Atomic Energy*
14 *Authority (IAEA) and Nuclear Energy Authority (NEA) of the Organization for Economic*
15 *Cooperation and Development (OECD), Institute for Regulatory Science (RSI), and*
16 *Environmental Evaluation Group (EEG).*

17 *Chapter 9 of the Compliance Recertification Application (CRA) contains discussion of the*
18 *peer review process and results, including detailed summaries of the peer reviews conducted*
19 *since the submittal of the CCA in 1996.*

20 *Appendix PEER-2004 is divided into 38 attachments. These attachments break the appendix*
21 *into major topical areas. Within each attachment there may be several documents of interest,*
22 *as outlined in the Table of Contents.*

23

1
2
3

This page intentionally left blank

1 *Table of Contents*

2 *PEER-2004 1.0 Conceptual Models Peer Review (1996-97)*

3 *PEER-2004 1.1 Plan and Reports*

4 *PEER-2004 1.1.1 Conceptual Models Peer Review Plan (3/28/96)*

5 *PEER-2004 1.1.2 Conceptual Models Peer Review Report (July*
6 *1996)*

7 *PEER-2004 1.1.3 Conceptual Models Supplementary Peer Review*
8 *Report (December 1996)*

9 *PEER-2004 1.1.4 Conceptual Models Second Supplementary Peer*
10 *Review Report (January 1997)*

11 *PEER-2004 1.1.5 Conceptual Models Third Supplementary Peer*
12 *Review Report (April 1997)*

13 *PEER-2004 1.2 Supplementary Information*

14 *PEER-2004 1.2.1 Determination of Peer Review Member*
15 *Independence*

16 *PEER-2004 1.2.2 Thompson memo (7/24/96)-Long-term*
17 *Performance of Panel Closures*

18 *PEER-2004 1.2.3 Larson memo (1/24/96)-Fracture Models*

19 *PEER-2004 1.2.4 Lord memo (1/29/96)-Variable Porosity and*
20 *Permeability in Anhydrite Material*

21 *PEER-2004 1.2.5 Papenguth Presentation (5/21/96) – Colloidal*
22 *Actinide Retardation*

23 *PEER-2004 1.2.6 Stoelzel paper (7/19/96)- Comparison of Effects of*
24 *Brine Pocket Size*

25 *PEER-2004 1.2.7 Bergland paper (7/19/96)-Tensile Strength of*
26 *Degraded Waste*

27 *PEER-2004 1.2.8 Bennett memo (8/20/96)-Heat Generation*
28 *Processes at WIPP*

29 *PEER-2004 2.0 Salado Conceptual Models Peer Review (2003)*

30 *PEER-2004 2.1 Plans and Report*

31 *PEER-2004 2.1.1 Salado Flow Conceptual Models Peer Review Plan*
32 *(February 7, 2003)*

33 *PEER 2004 2.1.2 Salado Flow Conceptual Models Peer Review*
34 *Report (May 2002)*

35 *PEER-2004 2.1.3 Salado Flow Conceptual Models Peer Review*
36 *Report (March 2003)*

37 *PEER-2004 2.2 Supplementary Information*

38 *PEER-2004 2.2.1 Determination of Salado Flow Peer Review*
39 *Member Independence*

- 1 ***PEER-2004 3.0 Spalling Conceptual Models Peer Review (2003)***
- 2 ***PEER-2004 3.1 Plan and Report***
- 3 ***PEER-2004 3.1.1 Spallings Conceptual Models Peer Review Plan***
- 4 ***PEER-2004 3.1.2 Spallings Conceptual Models Peer Review Report***
- 5 ***PEER-2004 3.1.3 Revised Spallings Conceptual Models Peer Review***
- 6 ***Plan***
- 7 ***PEER-2004 3.2 Supplementary Information***
- 8 ***PEER-2004 3.2.1 Determination of Spallings Peer Review Member***
- 9 ***Independence***
- 10 ***PEER-2004 4.0 Other Reviews Since CCA Submission***
- 11 ***PEER-2004 4.1 National Academy of Sciences (NAS)***
- 12 ***PEER-2004 4.1.1 The Waste Isolation Pilot Plant: A Potential***
- 13 ***Solution for the Disposal of Transuranic Waste***
- 14 ***(October 1996)***
- 15 ***PEER-2004 4.1.2 Improving Operations and Long-Term Safety of***
- 16 ***the Waste Isolation Pilot Plant, Final Report***
- 17 ***(April 2001)***
- 18 ***PEER-2004 4.1.3 Characterization of Remote-Handled Transuranic***
- 19 ***Waste for the Waste Isolation Pilot Plant, Final***
- 20 ***Report (July 2002)***
- 21 ***PEER-2004 4.2 International Atomic Energy Authority (IAEA)/ Nuclear Energy***
- 22 ***Authority (NEA/OECD)***
- 23 ***PEER-2004 4.2.1 International Peer Review of the 1996***
- 24 ***Performance Assessment of the US Waste***
- 25 ***Isolation Pilot Plant (WIPP) (April 1997)***
- 26 ***PEER-2004 4.3 Institute for Regulatory Sciences (RSI)***
- 27 ***PEER-2004 4.3.1 Requirements for Disposal of Remote-Handled***
- 28 ***Transuranic Wastes at the Waste Isolation Pilot***
- 29 ***Plant (2001)***
- 30 ***PEER-2004 4.3.2 Desirability of Performing Certain Transuranic***
- 31 ***Waste Characterization Tests (August 2003)***
- 32 ***PEER-2004 4.4 Environmental Evaluation Group (EEG)***
- 33 ***PEER-2004 4.4.1 EEG-62: Fluid Injection of Salt Water Disposal***
- 34 ***and Enhanced Oil Recovery as a Potential***
- 35 ***Problem for the WIPP: Proceedings of a June***
- 36 ***1995 Workshop and Analysis (August 1996)***
- 37 ***PEER-2004 4.4.2 EEG-64: Review of the Draft Supplement to the***
- 38 ***WIPP Environmental Impact Statement,***
- 39 ***DOE/EIS-0026-S-2 (April 1997)***

